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ABSTRACT

Two studies looked into the ability of 3- to 5-year-olds to understand the idea that a person who intends to bring about a bad outcome will be pleased when he does so. Previous studies had conflicting outcomes; one found children under age 7 did not understand the idea, while another found that most 5-year-olds did. The first of the two studies reported on in this document found that 3- and 4-year-olds had difficulty perceiving the agent as happy with the negative act, but understood the concept better by age 5. The control version of the second study presented children with scenarios in which two characters pursued their goals independently, and one's result was "good" and the other's "bad." In the other version, the characters had conflicting desires about a joint activity. Children tended to consider both of the characters with conflicting desires as being pleased. These results undermine a hypothesis that young children treat desirability as objective. But the hypothesis remains attractive. It implies, for example, that young children's lack of competitive spirit in games could be explained by their difficulty in understanding conflicting desires. It could also explain why young children always want what another child wants: another child wanting something makes it objectively desirable. (SAK)

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Objective Desirability: Bad Outcomes, Conflicting Desires and Children's Concept of Competition

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Paper presented in the Symposium on "Intention in the Child's Theory of Mind" at the Biennial Meeting of the Society for Research in Child Development, Seattle, WA, April 1991.

Yuill (1984) showed that children as young as 3 years understand that basic emotional reactions depend on the match between what is desired and what is achieved. For instance, in a story in which an actor *wants* to throw a ball to one of two recipients, children of this age judge that the actor is *pleased* if the intended recipient catches the ball, but *sad* if he does not. However, Yuill also found that children's understanding of desire is limited in certain ways. When the same task involved the desire to hurt somebody (hitting him on the head with the ball) even most 5-year-olds could not understand that fulfilment of such a desire could lead to pleasure.

One potentially interesting explanation for this pattern of results is that young children treat desirability as an 'objective' quality (e.g., Perner, 1991, chap. 9). That is, they may interpret the information "He wants the boy to catch it" as meaning that the boy catching the ball is objectively *desirable* (under present circumstances). The successful thrower is then judged as "pleased" because he achieved something *desirable* (not because he achieved what *he personally wanted*). In contrast, hitting another person on the head is seen as unalterably "undesirable" or morally bad (e.g., Nucci & Turiel, 1978). The story information that "he wants to hit the boy on the head" can do little to render such an event 'objectively desirable.' Hence they cannot understand that a person achieving such an undesirable (albeit intended) result could feel pleased.

Yuill (1984) tested 3-, 5-, and 7-year-old children. Only the oldest group had a firm understanding that a person intending a bad outcome will be pleased when achieving it. However, Nunner-Winkler and Sodian (1989) who used a very similar task as one of their control conditions reported that even most 5-year-olds understand this principle. This raises the question of whether the young children's difficulties in Yuill's study may have been a result of the particular test material used.

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Study 1. Bad Outcomes

We looked into this discrepancy between studies by using the story

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material used by Yuill (a child wanting to throw a ball at another person's head) and the material used by Nunner-Winkler and Sodian (a child on a bike trying to knock another child of her bike). Each child was told 4 stories in counterbalanced order, a match (hit or knock off intended person) and a mismatch version (hit or knock off other person) for each story material.

Table 1 shows that the difficulty reported by Yuill indeed existed for 3-year and some 4-year olds. As expected under the "objective desire" hypothesis, the main error these children committed was to judge any agent who achieved an intended but 'objectively bad' result as "sad" (third row of Table 1). However, in line with the results by Nunner-Winkler and Sodian few 5-year olds committed this error. Almost all of them understood that somebody who intends to achieve something bad will be happy when succeeding in doing so.

Table 1.
Frequency of Responses to the Match and Mismatch Version of Ball-Throwing and Bicycle-Bumping Stories.

Story Version		Ball Throwing			Bicycle Bumping		
Match	Mismatch	3y	4y	5y	3y	4y	5y
happy	sad (correct)	3	7	8	2	3	8
happy	happy	0	1	1	0	0	1
sad	sad	7	2	1	6	7	1
sad	happy	0	0	0	2	0	0

Table 1 also makes clear that the better understanding by the children in Nunner-Winkler and Sodian's study cannot be attributed to their story material because, if anything, our children did slightly better on Yuill's ball throwing stories than on Nunner-Winkler and Sodian's bike bumping scenarios. We have to conclude, that for some unknown reason Yuill's original study underestimated 5-year-olds' abilities in this respect.

In any case, the fact that the change occurs between 3 to 5 years suggests that the change from 'objective desirability' to viewing desirability as a personal, subjective feature occurs at about the same time as many other changes in children's understanding of the mind at around 4 years of age.

Study 2: Conflicting Desires

If young children think of desirability as 'objective' then they should find it difficult to make individual judgments of happiness and sadness when two people take different views on one and the same outcome. For instance, a boy and a girl are steering a boat together and the river branches. She wants to go left he wants to go right and they end up going right. Who is happy?

If children take the descriptions of what the two characters want as descriptions of what is 'objectively' good, then they should judge both characters as happy because they both find each other in a 'desirable' situation. Going right is 'desirable' because it was described as such, i.e.,

"He wants to go right." Only children who can construe desires as personal and subjective, can understand that the boy will be happy but not the girl because only he finds them going to the right subjectively desirable. Figure one shows the story pictures used for the conflicting desires condition and for the independent desires control condition.

Figure 1

Even the 'objectivist' young children should be able to give correct answers if the choice is between two characters who pursue their goals independently. For instance, the girl steers her boat and wants to go to the left. She ends up going to the right. The boy in his boat wants to go right and ends up going right. Who is happy? Now even under 'objective desirability' a correct answer is possible. The information about what the girl wants is taken as meaning, "the girl going left is good" and the information about the boy's desire is interpreted as, "the boy going right is good". Hence the boy finds himself in a 'good' situation whereas the girl finds herself in a 'bad' situation (i.e., one that wasn't described as 'good'). Consequently he will be happy, she will not.

We thought up 3 more comparable scenarios each in the two different versions. In the control version a boy and girl pursue their desires independently (independent desires); in the other version they had differing desires about a joint activity (conflicting, dependent desires). Here are the conflicting-desires versions:

The boy wants to go swimming. The girl wants to go hiking. Mother takes them swimming. (Harris & Muncer used similar stories on normal and autistic children; see Harris 1991).

The girl wants to roll the ball down the hill to the tree. The boy wants it to roll inside the dog's hut. The ball ends up at the tree.

The girl wants a rabbit, the boy a puppy for a joint Christmas present. They get a puppy.

We tested 20 children between the ages of 3 years and 7 months and 4 years and 11 months. Each child was told all four stories, two in their independent and the other two in their conflicting versions. Order and assignment of version to stories was counterbalanced. The question at the end of each story was: "Which one of the children is happy?" and "Is the other one happy?"

The right hand panel of Table 2 shows that in response to the first question, "Which one of the children is happy?" all children gave correct answers to both stories in the independent and (with the exception of 2 children) in the conflicting desires condition. Furthermore, there was also little problem with this question in the conflicting desires stories. However, as the left hand panel of Table 2 shows results were quite different for the second question about whether the other character was happy too.

In particular in the conflicting-desires condition children tended to say that the other character, too, would be pleased, as predicted by the 'objective desirability' hypothesis. Although some children committed the same error also in the independent-desires condition, it was significantly more frequent in the conflicting-desires condition (Sign test; N=10, x=1, p<.025.)

Children's tendency to consider characters with conflicting desires as both being pleased bears out the hypothesis that young children consider desirability as 'objective'. The result cannot be discounted as a superficial strategy of judging everyone as being pleased, since the tendency to do so was considerably less pronounced in the independent-desires condition.

The fact that children of this age have such difficulty understanding the different emotions created by conflicting desires is supported by Harris and Muncer's results (Harris, 1991, Table 19), where even children with an average age of 5 years and 4 months still had noticeable difficulties. Harris and Muncer asked children about each character's emotion directly: "Is the boy happy?, Is the girl happy?" and the predominant error was to judge both characters as happy. Harris (1991, p. 297) attributed this error to a kind of egocentrism (response according to default setting), namely that subjects themselves would be happy when put into this situation. However our findings show that this cannot be the correct explanation in as much the difficulty is specific to conflicting desires. Harris' explanation applies equally to independent desires.

Despite the fact that children's tendency to judge both characters as happy in the conflicting-desires condition supports the 'objective desirability' hypothesis, the question remains practically all children picked the correct character when asked "Which child is happy?". One could argue that this is incompatible with the hypothesis. If children use the rule: "somebody is happy whenever they find themselves in a 'good' situation (one that is described as 'wanted' by someone)," then they should have no basis for distinguishing between the two characters in the conflicting desires condition since both find themselves in a situation described as 'good'. However, there is a plausible explanation why children with an 'objectivist' understanding of desirability may consistently opt for the correct person. They point to the person who gave the eventual outcome its 'good' description, i.e., the situation was described as what the boy 'wanted' and so children think of him first when a forced choice has to made as to who is happy.

Table 2.
Number of Children Giving Correct Answers in Neither, One, or Both Stories of a Condition.

	Which child?			Other child?		
Desires	0	1	2	0	1	2
Independent	0	0	20	4	3	13
Conflicting	0	2	18	8	6	6

Discussion

There is one body of evidence which speaks against young children treating desirability as 'objective'. Flavell, et al. (1990) reported that young 3-year-old children who observe another person whose grimace expresses disgust with a (for the child) yummy cookie, were able to infer that that person must *thinks the cookie is yucky*. There are two ways to reconcile this finding with present findings. One possibility is that children assumed the cookie was 'objectively' yummy but that the other person 'pretended', or in any case, 'acted as-if' the cookie was yucky. This explanation would save the 'objective desirability' hypothesis. The other way out is to assume that children use 'objective desirability' for making emotional judgments, like judgements of happiness, but do understand that desirability can be subjective, personal.

Despite this potentially negative evidence, the hypothesis that young children treat desirability as 'objective' remains attractive, and worth defending for a bit. It is a larger framework that integrates the facts that young children cannot see how someone who intentionally achieves something (objectively) bad could be happy, and our finding that these children fail to understand the difference in emotional reaction to an outcome about which people had conflicting emotions. Also, the idea that young children treat things as intrinsically desirable or undesirable is reminiscent of adult's unreflected common sense reactions (and as Wimmer, 1989, pointed out conforms to Kurt Lewin's field theory of attracting and repelling forces). For instance (Perner, 1991, chap. 9), if you complain about your beer I first assume that it must have gone off (objectively). Only when I find it tasting fine do I realize that the problem is subjective: you don@t like beer. It is an appealing notion to assume that young children first figure out our default assumptions and later progress to the rarely necessary, refined view of subjective desirability.

A particularly interesting consequence of children's difficulty with conflicting desires is that it may explain young children's lack of competitive spirit in games. Gratch (1964, Table IV) found that children playing the hand-guessing game started to show signs of competitiveness (e.g., expressing displeasure at the opponent finding the penny) between 4 and 5 years, which matches the age at which our sample, and that by Harris and Muncer (Harris, 1991) became able to understand conflicting desires. This may not be pure developmental coincidence since to understand competition means understanding that players have--by definition--conflicting desires. One player wants the outcome of the game to be such that she is the winner and her opponent the loser, while her opponent wants that very outcome to be such that he is the winner and she the loser.

Finally, the idea that young children treat desirability as 'objective' could provide an intriguing explanation for why young children always want

what another child wants. Well, if our hypothesis is correct, that is because the other child wanting something makes it 'objectively desirable' and so the child herself will want it. This problem exists, of course, not for young children only. Even as adults we are often trapped into consumerism by the motive of keeping up with the neighbours. And there is some rational basis for it. What is desirable to others is often useful for oneself. The difference between young children and adults is that young children seem enslaved by their desire to grab whatever the other child is playing with, while adults have at least the intellectual means to rationalize their restraint by arguing that the object's desirability is only subjective and thereby they strengthen their resolve at self-control.

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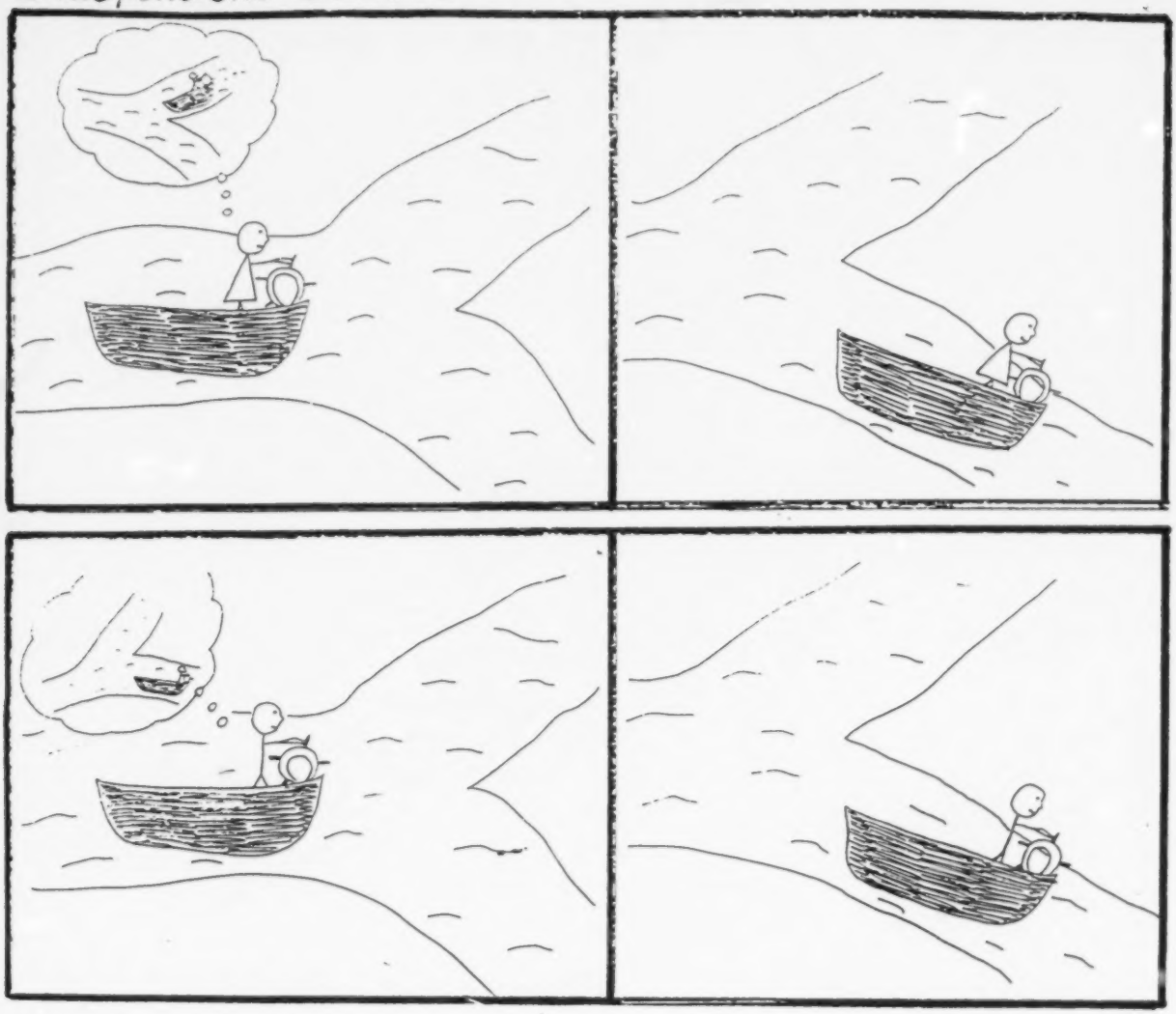
Independent Desires



Conflicting Desires